

Northern California

Fuels and Fire Behavior Advisory

Subject: Potential for extreme fire behavior due to critically low live and dead fuel moistures, very dry conditions resulting from minimal snowpack/winter precipitation, and elevated fire danger rating values across much of northern California. Fire spread is fuel-driven.

Discussion: Fires burning in northern California are exhibiting extreme fire growth based on critical fuel conditions. Wind is not a predominate factor in fire spread. Surface fuels are very receptive to embers. Long-range spotting, area ignition, and group torching is occurring on large fires frequently.

Concerns to Firefighters:

- Energy Release Component (ERC) values at numerous weather stations have been running well above average this season. Most are above the 93rd percentile or have set record highs. Ignition potential is extreme and new fires or spot fires can rapidly grow and out run suppression efforts. **Know what your fire is doing at all times!**
- Fires burning under the influence of inversions often exhibit high to extreme fire behavior. When inversions break, these same fires can become extremely active, burning intensely with rapid rates of spread under favorable weather conditions. **Keep informed on fire weather conditions and forecasts and Base all actions on current and expected behavior of the fire. Use belt weather kits.**
- Both live and dead fuel moistures are near or exceeding critical thresholds. Record low 100 and 1000 hour fuel moistures have been observed. These conditions are not expected to moderate until a season-ending event occurs. New fires are moving into extended attack earlier and more frequently **Do not expect fires to exhibit reduced fire behavior when entering areas of live fuels; anticipate increased spread rates and spotting.**
- Be mindful in areas of unburned or incompletely burned fuels. These fuels are now pre-dried, very vulnerable to re-burning, and are extremely flammable. **A common denominator of fire behavior on tragedy and near-miss fires: Flare-ups generally occur in deceptively light fuels, such as grass and light brush** or islands within fire perimeters of unburned or partially burned fuels.
- Areas that previously burned in 1987, 2000, 2008, and other years have very high fuel loadings as well as standing dead snags. **Fire behavior in these areas is more often more intense due to increased fuel loadings. Constantly update your situational awareness and be wary when working in areas with standing dead trees both black and green.**

Mitigation Measures:

- Share site specific information on fuels and fire behavior to local and inbound fire personnel. Ensure they understand local conditions and are aware of known hazards.
- Remind firefighters not to get complacent with low to moderate fire behavior under inversion conditions. Things can change rapidly. Ensure firefighters have 1) good anchor points, 2) escape routes, and 3) safety zones. Practice **LCES!**
- Consult the latest Fire Weather Forecasts, Monthly Fire Weather / Fire Danger Outlooks, and Pocket Cards. For the most recent fuel conditions and fire behavior charts go to:
http://gacc.nifc.gov/oncc/predictive/fuels_fire-danger/index.htm

Area of Concern:

Northern California: All areas except the North Coast and Bay Area/Marine Predictive Services Areas are included.

A map showing the areas of concern described in this advisory can be found at:

http://www.predictiveservices.nifc.gov/fuels_fire-danger/fuels_advisories.htm

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